
Claims

What we claim as our invention is:

(1) CONTROL CARD CHECK is a wireless, digital device with a system and method for accessing individual financial records for bank and credit card customers only, but not limiting the Cell Phone, PDA (palm pilot), or Lap-Top companies to integrate this invention into their products.

(2) The user inserts their card into a portable magnetic stripe card reader slot operatively embedded inside the micro-controller with the dimensions: 0.37"L x 2.37"W x 3.68"H, and weighing approximately 5 ½ to 6 ounces.

(A) The card reader consists of parallel guiding rails on both sides of the sensor in order to guide the edges of the card consisting of an arrangement of sensors, spring coils, and the exercise of maximum insertion of the magnetic card into the slot; card reader, and pressing the springs and locking the switch that is supplied with a responsive button to release the card once the user is done using it. The sensors automatically scan the encryption code from the magnetic strip and agree with;

(B) a digital signal generator linked to the reader for producing a digital signal based upon the read signal; the digital generator outputs the (ADC) analog to digital conversion signal enabled by a Digital signal processor(DSP)chip.

(C) Analog to digital conversion is an electronic process in which a continuously variable (Analog) signal is charged, without altering its essential content, into a multi-level digital signal.

(3) Transmitting an identification code to the bank network host processor that recognizes the Identification of the card through a modem that is ideal for satellite Global System for Mobile communications (GSM) backhaul and ISP trunking that is an international standard.

(4) CONTROL CARD CHECK then asks you to input your four-digit pin number on the black and white, display touch screen (160x160) transfective in order to verify that the card is in the possession of the appropriate owner;

(A) Like lock numbers, Pin numbers are based on the rule of decoding and encoding of secret information;

(B) These numbers make up a code so people cannot access your account by any means of technology vehicles.

(5) In relations to claim 3, CONTROL CARD CHECK has to connect to, and communicate through, a host processor, via point- to- point dedicated telegraph line;

(A) A host processor is analogous- (alike) to an Internet Service Provider (ISP) in that it is the gateway through which all the various ATM networks become available to the cardholder.

(B) Subsequent to claim 3, 6, and 6A, CONTROL CARD CHECK uses a narrow band that is 30 kHz wide and 6.7 millisecond long is a split time wise into three time slots. Narrow band means channels in the traditional sense. Data converts to digital information that is compressed so that it takes up significantly less transmission space than analog transmissions.

(CONT). This frequency is transmitted to a host processor that converts it back into a copy of the original information; then sends that information to the bank; the bank reads the data, recognizes it, then sends it back to the receiver (host processor) that mixes the codes of information, discerns it, and sends it back to the initial Modulator (CONTROL CARD CHECK).

(6) CONTROL CARD CHECK relies on frequency-shift keying (FSK) to send data back and forth over (AMPS) Advanced Mobile Phone System. FSK uses two frequencies, one for 1s and the other for 0s, alternating rapidly between the two to send digital information between the cell tower and the modulator.

(A) Clever modulation and encoding schemes are required to convert the analog information to digital, compress it and convert it back again while maintaining an acceptable level of quality. All of this means that digital systems need to contain a lot of processing power.

(7) In relations to claim 6A, a Wav format is needed. Microsoft's Compressed WAV format ADPCM (Adaptive Differential Pulse Code Modulation) is an audio compression scheme which compresses from 16-bit to 4-bit for a 4:1 compression ratio, or;

(A) Compressed WAV format. U-Law (or CCITT standard G.711) is an audio compression scheme and international standard in telephony applications. U-Law is very similar to A-Law, a variation of u-Law found in European systems. This encoding format compresses 16-bit audio down to 8 bits (for a 2:1 compression ratio) with a dynamic range of about 13-bits. Thus, u-Law encoded waveforms have a higher s/n ratio than 8-bit PCM, but at the price of a bit more distortion than the original 16-bit audio. The quality is higher than you would get with 4-bit ADPCM formats. Encoding and decoding is rather fast and generally, widely supported.

(8) In relations to claim 3,5,5A, and 5B, an interior wireless modem (modulator/demodulator) conducts a process of modulation; a communication process in which some characteristics of a wave is made to vary in accordance with an information-bearing signal wave. Demodulation is processed by the original signal recovered from the wave produced by modulation.

(A) Modulation achieved by the transfer of energy by oscillatory motion, either of some material medium or by the variation in magnitude of the field vectors of an electromagnetic field transmitting and receiving digital data over a communication line normally used for analog signals;

(B) As mentioned in claim 8A, a micro-Oscillator = electronic circuit produces an output signals of a specific frequency, capable with quartz crystal oscillators generally consisting of ;

(C) Micro- Amplifiers having part of its output returned to the input by means of a feedback loop.

(9) A Micro-mixer to translate signals upward or downwards in frequency.

(10) A Micro-Potentiometer makes a precise determination of electromagnetic force, or maximum output voltage, of a cell generator (battery) by comparing it with a known voltage.

(11) Initialize Memory location in the device in order to receive a stream of data from each lined sensor in the card reader.

- (12) The screen gives you four options to choose from.
- A. Current Balance.
 - B. Daily transactions
 - C. Weekly transactions
 - D. Payment information and Due date. (Bank payment address & phone numbers).
- (13) Two buttons; left one is for up/down, and the right button is for enter. Audit your account.
- (14) Network frequency: 900/1900 MHz GSM, and any other Mobile satellite network systems.
- (15)(1500mAh Li-Lon) battery (rechargeable).
- (16) Interior antenna
- (17) Housing material consists of Magnesium Alloy and Plastics.
- (18) Signal pulses can be read using the computer software of an existing conventional card reader; or the language program can be created and manipulated anew. Microsoft ® Windows embedded preferred.
- (19) Intel® Strong Arm 144 MHz processor, or higher (if needed).
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